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What is claimed is:

1. An optical signal transmission substrate for transmitting an optical signal, comprising an optical
5 signal transmission area where at least one of a light emitting element for sending the optical signal to other optical signal transmission substrates or a light receiving element for receiving the optical signal from other optical signal transmission substrates is located so as to be
10 capable of sending or receiving the optical signal in a direction substantially perpendicular to a surface of the substrate.

2. An optical signal transmission substrate
15 according to claim 1,
wherein the optical signal transmission substrate is used as it is held between the other optical signal transmission substrates, and

wherein the optical signal transmission area
20 comprises a transmittable window exhibiting light transmittability at the position where the optical signal transmitted between the other optical signal transmission substrates passes through.

25 3. An optical signal transmission substrate

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according to claim 1, comprising electrodes at least at a pair of the edges of the substrate.

4. An optical signal transmission device composed by laminating a plurality of the optical signal transmission substrates as stated in any of claims 1 through 3 in such a manner that the optical signal transmission areas of the respective substrates overlap one another,

wherein the light receiving element is located in any one of the optical signal transmission substrates so as to be opposed to the light emitting element provided in any one of the other optical signal transmission substrates.

5. An optical signal transmission device according to claim 4, wherein the optical signal transmission substrate held between the optical signal transmission substrate provided with the light emitting element and the optical signal transmission substrate provided with the light receiving element comprises a transmittable window exhibiting light transmittability at the position where the optical signal to be transmitted between the light emitting element and the light receiving element passes through.

6. An optical signal transmission device according to claim 4, wherein plural sets of the light emitting element

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and the light receiving element for transmitting the optical signal are located along the optical axis of one optical signal.

- 5 7. An optical signal transmission device according to claim 4, comprising an adhesive layer between the optical signal transmission substrates, the adhesive layer being composed of an adhesive agent and electrodes for electrically connecting the electrodes of both substrates.